Yoonjeong Park

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RESEARCH INTERESTS

(Singing) Voice Conversion, Music Generation, Music Information Retrieval, Speech Recognition, Text-guided Image Generation

EDUCATION

Sep.2019 - Present
Korea Advanced Institute of Science and Technology (KAIST) Daejeon, Korea
M.S. Student in Graduate School of Artificial Intelligence
Music and Audio Computing Lab (Advisor: Juhan Nam)

Mar.2019 - Aug.2024
Yonsei University Seoul, Korea
B.S in Computer Science, overall GPA: 3.8/4.3 [CS] 3.96 /4.3
Recipient of scholarship 2022-1 GPA: 4.24/4.3

Jan.2023 - April.2023
University of British Columbia Vancouver, Canada
Exchange Student in Computer Engineering
Relevant Course: Topics in Computer Engineering – deep learning

PUBLICATIONS

†: Corresponding author, *: Equal contribution

[1] Can Separators Improve Chain-of-Thought Prompting? | paper
Yoonjeong Park*, Hyunjin Kim*, Chanyeol Choi, Junseong Kim†, Jy-yong Sohn† (Preprint)

RESEARCH EXPERIENCE

Mar.2024-Present
Undergraduate Research Intern at DSP&AI Lab.
- Conduct research aimed at improving intelligibility using soft speech units proposed in the SoftVC paper
- Summarized the research progression in Voice Conversion and presented it

Jun.2021 - Aug.2021
Undergraduate Research Intern at Cyber Security Lab.
- Participated in research project of reverse engineering using GNN to predict function name from kernel binary code
- Analyzed baseline paper NERO's data pre-processing code and implemented pre-processing code for our dataset based on NERO's data pre-processing code

INDUSTRY EXPERIENCE

Sep.2023 - Feb.2024
Linq company Cambridge, Massachusetts, United States (REMOTE)
Research Intern
- Advised by Prof. Jy-yong Sohn, Dr. Junseong Kim
- Led a project focused on enhancing Chain-of-Thought prompting
- Proposed and developed a novel method "CoT-Sep" to help Large Language Models (LLMs) understand their thought processes better while reasoning.

Jun.2021 - Jan.2022
ESOL company Hwaseong City, Korea
R&D Center, Intern
- Participated in development of EUV inspection equipment which use detection model to detect defect in image dataset
- Managed and coordinated the outsourcing company's requirements and presented performance of developed model bi-weekly

SELECTED PROJECTS

Oct. 2023 - Dec. 2023 **Speech Recognition for Korean Dialect | Github Repo**

Developed a specialized speech recognition model for Korean regional Dialect

- Preprocessed Korean Dialect dataset from AI hub and trained Deepspeech2 model using open-source toolkit, kospeech
- Achieved model performance comparable to that of Faster Whisper on test dataset reducing CER (Character Error Rate) to 0.2

Jan. 2024 - Feb. 2024 **Real-Time Multilingual Chatbot for Gaming| Github Repo**

Developed a discord bot for a real-time STT-translate-TTS

- Enhanced STT performance on streaming audio using AWS transcribe
- Implemented a discord bot to send translated text to users for TTS

Mar. 2022 - May. 2022 **Auto White Balance for Multi-illuminant | Github Repo**

Researched and enhanced Auto White Balance models for multi-illuminant scenes

- Modified U-Net3+ to perform regression task per pixel and improved performance compared to the baseline U-Net model
- Conducted extensive research on vision transformer models for AWB task and trained Swin-UperNet model and evaluated its performance in comparison to U-Net and U-Net3+ models

COMPETITIONS & AWARDS

Jan.2023 **Certificate of Excellence** *Linq company*

Awarded as R&D intern

Oct.2023 - Dec.2023 **Special Award** *2023 Software University AI Competition*

Developed AI Model for Satellite Image Building Area Segmentation | **Github Repo**

July.2023 - Oct.2023 **10th place / 110 teams** *2023 Korean Language Competition*

Developed specialized speech recognition Model for Elderly people and children

Dec. 2023 **Popularity Award** *2023 Software Capstone Design, Yonsei University*

SKILLS

- Deep Learning: Pytorch
- Data Science: Numpy, R
- System Admin: Docker
- Version Control: Git
- Operating System: Linux, macOS, windows

LANGUAGES

- Korean: Native
- English:
  TEPS: 447 (Mar. 09. 2024 ~ Mar. 09. 2026)
  TOEFL iBT: 102 (Dec. 18. 2021 ~ Dec. 18. 2023, Expired)
- Python, C++, Java, MySQL, PostgreSQL
  (* in the order of fluency)

EXTRACURRICULAR ACTIVITIES

2023 - PRESENT **YAI (Yonsei Artificial Intelligence Club at Computing College)**

- Leading Industry Collaboration as Vice President
- Conducted Speech, Generative models paper review study
- Participated in Vision and Language Multimodal paper review study

2020 - PRESENT **PoolC (Programming Club at Engineering College)**

- Led basic algorithm study, machine learning study
- Participated in Transformer, Computer Vision paper review study